



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,502	02/02/2005	Eduard Michel	2002DE124	1365
25255 7590 06/17/2008 CLARIANT CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 4000 MONROE ROAD CHARLOTTE, NC 28205			EXAMINER BURNEY, RACHEL L	
			ART UNIT	PAPER NUMBER
			1795	
			MAIL DATE	DELIVERY MODE
			06/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,502

Applicant(s)

MICHEL ET AL.

Examiner

Rachel L. Burney

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

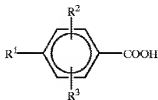
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5288581, Ziolo et al. in view of US Patent 6207335, Michel et al.

With respect to claims 1, 7, 13, 14 Ziolo discloses a toner comprising a charge enhancing additive, which may be a layered double hydroxide, which is made from a hydrotalcite, which are mixed metal hydroxides, comprising divalent and trivalent metal cations, and may comprise organic anions, such as salicylate (column 1, lines 8-45). Ziolo does not disclose the specific organic anions of the instant application. Michel discloses a process for controlling the charge of an electrophotographic toner by adding a control agent which comprises metal carboxylates which comprises an alkali metal salt which may comprise salicylate (column 13, lines 27-29) or may comprise the acid having the formula:

Art Unit: 1795



wherein R¹ is a linear or branched alkyl radical with 1 to 18 carbon atoms, R² and R³ are C1-C8-alkyl or C1-C4-alkoxy (column 4, line 47 – column 6, line 8). It would have been obvious to one of ordinary skill in the art to use the organic acid/anion of Michel in the organic anion of Ziolo because Michel teaches that they are used in similar embodiments and that they are functionally equivalent. With respect to claim 2, Michel further discloses that the organic anions may be 4-tert-butylbenzoic acid (Michel, column 15, line 46).

With respect to claim 3, Ziolo and Michel do not disclose the ratio of hydroxyl group to the sum of all the metal cations, however because Ziolo is using the same compositions for the same embodiment, it would have been obvious to one of ordinary skill in the art the use a combination of cations which are workable in the given embodiment, and that would have reasonably fallen within the desired ranges.

With respect to claims 5-6, 15 Ziolo further discloses that they double hydroxide may contain Mg²⁺ and Al³⁺ (column 1, lines 25-26). Ziolo does not disclose the molar ratio of Mg²⁺ to Al³⁺, but it would have been obvious to one of ordinary skill in the art the use a combination which is workable in the given embodiment, and that would have reasonably fallen within the desired ranges.

With respect to claim 8, Ziolo further discloses that an ammonium salt may also be used as the charge control agent (column 1, line 66 – column 2, line 3).

With respect to claims 9 and 10, Ziolo further discloses that the binder may be present in an amount of 70-90% by weight, the charge enhancing additive is present in an amount of 0.1-5% by weight, and a colorant in an amount of 10% by weight based on the weight of the toner (column 5, lines 54-66).

With respect to claim 11, Ziolo further discloses that the divalent metal cations may be Mg^{2+} , Zn^{2+} , Co^{2+} , Ni^{2+} , or Fe^{2+} (column 1, line 25).

With respect to claim 12, Ziolo further discloses that the trivalent metal cation may be Al^{3+} , Fe^{3+} , or Cr^{3+} (column 1, line 26).

3. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5288581, Ziolo et al. in view of US Patent 6207335, Michel et al. as applied to claim 8 above, and further in view of US PGPub 2002/0098435, Rohr et al. Ziolo and Michel disclose the process of claim 8 as discussed above, but fail to teach the use of boron ester derivatives as the charge control agent. Rohr discloses a toner comprising a charge control agent (PP 0016), wherein the charge control agents may be salicylate complexes or boron ester derivatives of cyclically linked oligosaccharides (PP 0059). It would have been obvious to one of ordinary skill in the art at the time of the invention to use boron ester derivatives of cyclically linked oligosaccharides as a charge control agent instead of the salicylate of Ziolo because Rohr teaches that they are functional equivalents and one would have a reasonable expectation of success in doing so.

Response to Arguments

4. Applicant's arguments, see pages 9-11, filed 06/02/2008, with respect to the rejection(s) of claim(s) 1-3 and 5-16 under US Patent 6207335, Michel and JP Patent Application 2003-0162145, Saiki have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as discussed above. Finality is hereby withdrawn.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Burney whose telephone number is (571)272-9802. The examiner can normally be reached on Mon-Thurs: 7:30-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RLB

**/Mark F. Huff/
Supervisory Patent Examiner, Art Unit 1795**